

**From:** Rochlin, Kevin  
**Sent:** Monday, September 30, 2013 10:26 AM  
**To:** Richard Poeton; Faller, Scott H.  
**Subject:** FW: FMC Site Team Road Map for this Week  
**Attachments:** 2013-09-27 Field Modification #1 Gamma Cap Work Plan.pdf; FMC review team instructions.docx  
**Categories:** 11-19 to 1-10 2014

---

From:

Kevin Rochlin, Project Manager  
Office of Environmental Cleanup  
United States Environmental Protection Agency  
Region 10  
Suite 900  
1200 6th Avenue  
Seattle, WA 98101  
(206) 553-2106  
(206) 553-0124 (fax)  
[rochlin.kevin@epa.gov](mailto:rochlin.kevin@epa.gov)

---

**From:** Rochlin, Kevin  
**Sent:** Monday, September 30, 2013 10:24 AM  
**To:** [Douglas.Tanner@deg.idaho.gov](mailto:Douglas.Tanner@deg.idaho.gov); Greutert, Ed [USA]; Kelly Wright; Scott Miller - Idaho DEQ ([Scott.Miller@deg.idaho.gov](mailto:Scott.Miller@deg.idaho.gov)); Stifelman, Marc; [susanh@ida.net](mailto:susanh@ida.net); Zavala, Bernie  
**Cc:** Rochlin, Kevin  
**Subject:** FMC Site Team Road Map for this Week

Road Map for Week of September 30.

Sorry for the flurry of emails. To make sure that everyone has followed it all.

**1) Discussion of FMC Field Modification for the Gamma Cap Investigation**

- a. 3 page document which includes schedule for this week.
- b. Conference Call Site Team 2-3:30 PST **Call in number 206 555 6214**  
You should have received an invite. Let me know if you have not.
- c. **At 3:00 PST we will be recalling in to an FMC number to discuss any issues that we may have with them.** 888-651-5908, 175-3505# .

**2) First Team Meeting**

- a. Wednesday October 2. 1:00 PST. Call in -206-553-4557
- b. Document provided on review/comment and notification for reaction/discussion.

**3) Oversight.**

- a. EPA Team will be onsite starting Tuesday this week.
- b. Contact is James Bozic. [Bozic\\_James@BAH.com](mailto:Bozic_James@BAH.com). Cell 206 422-1860.

**4) Government Shutdown**

- a. In the event of a government shutdown, contractors are still working. There will be a few designated EPA employees available to take phone calls and provide site direction. Information will be provided on my voice mail.

- b. In the event of a government shutdown, I will not be able to hold the Wednesday call.
- c. If someone wants to hold the call in my absence, they are welcome to continue with the call. It is illegal however for me to participate if the government is shut down.

---

From:

Kevin Rochlin, Project Manager  
Office of Environmental Cleanup  
United States Environmental Protection Agency  
Region 10  
Suite 900  
1200 6th Avenue  
Seattle, WA 98101  
(206) 553-2106  
(206) 553-0124 (fax)  
[rochlin.kevin@epa.gov](mailto:rochlin.kevin@epa.gov)

## EPA Project Review Strategy

### Proposal:

Kevin Rochlin 9/27/13

### Deliverables:

- 1) FMC deliverables. FMC sends deliverables directly to EPA (Kevin), IDEQ (Bruce, Dough, Scott), and Tribes (Kelly and Susan). Additional distribution up to the individual leads.
- 2) The ROD and SOW are the ruling documents for the current remedial action, and comments must be consistent with those documents.
- 3) Each team provides comments to EPA in timely fashion. EPA forwards comments to FMC to address.
  - a. This is the only site I have worked on where it is done this way. Normally EPA team would go through the comments determine which comments EPA agreed with, and combine comments into one comment set of "EPA comments" that the PRP is required to address. That way, EPA is defending the comments. EPA then provides the other review teams a reason for why their particular comment was not adopted. Each party would still be able to forward individual comment sets. The important thing here is that EPA has enforcement authority for EPA comment sets.
  - b. Under the current system, if EPA does not support a comment, and FMC does not provide a satisfactory answer, EPA's recourse is to just send back a response from the party who provided the comment, but EPA will not require a change in the document if we do not support the comment (again because we are using enforcement authority for EPA comments).
  - c. Many times comment sets contain comments that are not germane to the document in question, but rather are placeholders for later issues, or litigation related statements. All parties including EPA do this. EPA has no problem with these in your comment sets. This is why I do not normally use the current method. If FMC provides answers that a party does not like, but the comment is not related to the document in question, I cannot "defend" the comment as EPAs.
- 4) EPA will review comment set responses at weekly conference calls, and then move forward with responses.
- 5) If a document is resubmitted, review must again be in a timely matter.

### Meetings:

- 1) EPA and the review team will have weekly or biweekly telecom meetings. A set time each week will be agreed to and followed.
- 2) If the group desires, I will also set up a weekly meeting for FMC to review their progress with the review team.
- 3) If other subset groups are needed these will be scheduled as well i.e various technical sub teams. Any subteam groups will report back to the larger group.
- 4) There will be times that FMC will call EPA to discuss an issue. EPA will report out the results of the discussion to the group.
- 5) EPA and the EPA contracting team will periodically discuss issues together in order to develop an EPA position/opinion. If I think it is of interest to other members of the team, I will send out an open invitation, for anyone who is available to listen in. Since these are EPA internal meetings, their scheduling is not planned or may not have any lead time. Information from these meetings will be provided to the group for response as appropriate.
- 6) If FMC is making a proposal of a position, a telecom will be scheduled in advance.

#### Work Change Orders:

There are going to be times that field changes are required. These will need to be done quickly to keep the project going.

*As I have asked the group how they want to handle these, I have removed this section.*

## **Gamma Cap Performance Evaluation Work Plan – Field Modification #1 September 27, 2013**

As stated in the Gamma Cap Performance Evaluation Work Plan, the test gamma cap was constructed in the former Bannock Paving Area (BPA). The area was chosen due to the depth of the slag (approximately 6 feet and greater than the infinite slab thickness) and was expected to be “far enough from the slag pile to minimize gamma shine impacts on gamma measurements during the test cap evaluation.” However, during field implementation of the Gamma Cap Performance Evaluation Work Plan during the week of September 16, 2013, gamma shine of approximately 3  $\mu\text{R/hr}$  was observed (and observed by an EPA representative on 9/19/13) which confounds the ability to accurately measure the effectiveness of the test gamma cap. Based on field placement of heavy equipment shielding, the primary sources of shine were from the east and south of the test cap and likely include slag slopes to the east, the slag pile located generally southeast and the slag ramp to the south.

This field modification includes addition of two components to the Work Plan:

1. Building a shield wall outside the limit of the test gamma cap pad that is expected to reduce gamma shine; and
2. Utilizing a shielded (collimated) sodium iodide (NaI) detector to perform a gamma count rate – exposure rate correlation as described below.

A task list and preliminary schedule for completing the gamma cap performance evaluation pursuant to this field modification is attached.

### **Gamma Count Rate-Exposure Rate Correlation**

Both the sodium iodide (NaI) detector and HPIC measure gamma radiation in air. The HPIC is a highly accurate ionization chamber for measuring exposure rate in  $\mu\text{R/h}$  but cannot be efficiently shielded to minimize the impact of gamma shine. The sodium iodide detector system measures the rate that the detector interacts with gamma rays in cpm and can readily be shielded (with a collimator) to minimize the impact of gamma shine on the detector. By developing a correlation between the two instruments (i.e., the shielded sodium iodide detector and the HPIC), exposure rates derived from the shielded sodium iodide measurements can be used for performance verification on the constructed gamma caps.

### **Proposed Correlation Methods**

Field personnel will collect co-located static gamma counts (using the shielded sodium iodide detector) and exposure rate measurements (using the HPIC) to develop the correlation between gamma counts and exposure rates. The goal will be to take the co-located measurements at locations where gamma shine is minimized (i.e., in the Western Undeveloped Area [WUA] and behind the constructed shield wall at the test gamma cap). In addition, locations will be chosen where the range of the exposure rates would span above and below the radium-226 cleanup level of 17.4  $\mu\text{R/hr}$ .

The shielded (collimated) gamma radiation measurements will be performed using a Ludlum Model 44-10 high energy gamma detector coupled to a Ludlum Model 2221 ratemeter/scaler set in ratemeter mode and window “open”. Two concentrically aligned cylindrical lead shields will be used to cover the detector. The inner shield, 0.25-in thick, is manufactured by Ludlum for the

Model 44-10 detector. It covers the entire length of the detector. The inner shield is placed within another cylindrical shield, 0.5-in thick and approximately 6 in. long. Daily function checks of the radiation detection systems will be performed in accordance with FMC SOP-9, "Function Check of NaI Detector Equipment," using an NIST-traceable cesium-137 source (Eberline S/N 4054-02). Function checks will be performed at the beginning and end of the day at a project reference point in the FMC trailers, located approximately ¼ mile from the site entrance.

Approximately 3 co-located HPIC and NaI detector measurements will be made in the WUA at locations covering the range of about 13.5 to 15.5  $\mu\text{R/hr}$  based on the SRI HPIC measurement locations. Approximately 9 co-located HPIC and NaI detector measurements will be made on the test gamma cap with the shield wall in place to minimize gamma shine as follows:

- Approximately 3 measurements on the test cap as constructed during the week of 9/16/13;
- Approximately 3 measurements on test cap after regrading to 14 inch nominal and 12 inch minimum thickness; and,
- Approximately 3 measurements on the test cap after placement of an additional 6 inch lift of soil and compaction of the lift.

The sampling locations on the test gamma cap (for each of the above thicknesses) will be selected based upon HPIC measurements so that the collocated measurements cover the range of HPIC measurements for that cap thickness.

## Task List and Preliminary Schedule – Gamma Cap Performance Evaluation

### Field Modification #1

Day / Date	Tasks
Monday 9/30	<ul style="list-style-type: none"> <li>• HPIC and collimated NaI detector measurements at center grid nodes (approx. 3 locations that represent range of HPIC measurements) on test cap</li> <li>• Position heavy equipment (“HE”) behind hay bale wall if needed to confirm shielding that replicates (or is lower than) HPIC result with HE at 28’ radius (as observed by EPA representative on 9/19/13)</li> <li>• Additional HPIC and collimated NaI detector measurements at center grid stations of cap (if HE added to shield wall)</li> <li>• HPIC and collimated NaI detector measurements in the WUA (approx. 3 locations representing range of HPIC readings recorded during the SRI)</li> </ul>
Tuesday 10/1	<ul style="list-style-type: none"> <li>• Adjust grade of test cap to nominal 14” / minimum 12” thickness</li> <li>• Survey post-cap topography</li> <li>• HPIC readings on full interior grid (25 nodes) and collocated collimated NaI detector measurements (approx. 3 locations that represent range of HPIC measurements)</li> </ul>
Wednesday 10/2	<ul style="list-style-type: none"> <li>• Place, grade and compact additional 6” lift on test cap</li> <li>• Compaction tests on 6” lift (5 tests per Work Plan)</li> </ul>
Thursday 10/3	<ul style="list-style-type: none"> <li>• Survey post-cap topography</li> <li>• HPIC readings on full interior grid (25 nodes) and collocated collimated NaI detector measurements (approx. 3 locations that represent range of HPIC measurements)</li> <li>• Remove hay bale wall</li> </ul>
Friday 10/4	<ul style="list-style-type: none"> <li>• HPIC readings on full grid (49 nodes)</li> </ul>